Abstract. Digital gaming in education is an area that has been rapidly expanding in popularity and is gradually being applied to second language (L2) contexts (Godwin-Jones, 2014). Mobile gaming in particular offers the benefits of digital gaming while also offering the portability and accessibility of mobile devices (Ogata & Yana, 2003; Stockwell, 2010). This pilot study examines student and teacher perceptions of a mobile team-building game entitled Spaceteam ESL. Although not created as an educational game, Spaceteam ESL allows students to interact in the target L2 (English) while providing a comfortable and enjoyable environment to practice the language. We hypothesize that its regular use may contribute to the development of oral fluency in the target language, as it engages learners in an activity that encourages them to reuse the language that they already know in an automatized (fast) but comprehensible manner. In general, our analyses indicate that users and their instructor perceive Spaceteam ESL positively, as a fun and effective way to practice English.

Keywords: digital gaming in L2 education, MALL, fluency development.

1. Introduction

Although digital gaming was not created for educational purposes, it has great potential for use in second language education (e.g. Chik, 2014; Godwin-Jones, 2014; Kim 2014; Reinders & Wattana, 2014). With the widespread use of mobile devices such as smartphones and tablets, language learners now have in their hands...
a more accessible alternative to stationary desktop computers, a tool that allows them to learn anytime, anywhere.

According to Nation (2007), the design of any language program or class should include the following four strands: access to meaningful language input, opportunities for meaningful output, a language focus, and opportunities for fluency development. He also recommends that practice should equally target these four strands. However, the last strand, fluency development, is often neglected in the language classroom, “possibly because it does not involve the learning of new language items” (Nation, 2007, p. 8). Fluency development involves making the best use of what is already known (e.g. known vocabulary and pronunciation features) in a fast, automatic, but comprehensive manner. Digital gaming via mobile devices may offer an accessible and time-efficient way for learners to develop fluency.

The current study introduces the mobile game Spaceteam ESL as a classroom tool to promote the development of oral fluency, and examines student and teacher perceptions of the game. Spaceteam ESL is a free digital, interactive team-building game (app) played on mobile devices. It was developed by David Waddington and Walcir Cardoso, based on the original Spaceteam mobile game created by Henry Smith of Sleeping Beast Games. In the adapted version of the game, each team member is presented with a panel of buttons and dials, and a unique set of instructions (see Figure 1). An individual’s instructions correspond with those of the team member’s panels. The labels for each item on a player’s panel are vocabulary combinations randomly generated with a verb + complement (usually adjective + noun or noun + prepositional phrase; e.g. “set super-chicken to 3”). The vocabulary repertoire was taken from the 1,000 most frequently used word list in English, thus allowing learners to practice what they already know, in an automatized but comprehensive manner. As game levels increase, so does the complexity of the vocabulary (word-level frequency and pronunciation difficulty). Players must interact orally with team members to communicate and/or carry out instructions in a limited amount of time to pilot a spaceship. Accordingly, players must be both intelligible and efficient (fast) in speaking so that their teammates can successfully interpret the instructions within the time frame.

As Spaceteam ESL does not explicitly target a specific language feature, the game fulfills another requirement of Nation’s (2007) fourth strand of fluency development, as “it does not involve the learning of new language items” (p. 8). Although not created as a pedagogical game, we believe that Spaceteam ESL has the potential to serve as a pedagogical tool for L2 practice in an entertaining and
non-threatening manner. We aim to find out whether this hypothesis is correct in this study: What are student and teacher perceptions of Spaceteam ESL?

Figure 1. Spaceteam ESL: the interface

2. Method

2.1. Participants

The participants were ten Chinese students enrolled in an intermediate-level ESL conversation course at a Canadian university. However, due to sporadic attendance rates and participant attrition, only four students were considered.

2.2. Instruments and data collection

A survey was distributed to participants after the final gaming session to obtain reactions to the game. The survey consisted of 15 questions using a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). It asked students questions about the impact Spaceteam ESL may have had on their learning experience (e.g. “I felt more comfortable speaking English while playing Spaceteam ESL than I would in front of the teacher”). Open-ended interviews were also conducted in which participants were encouraged to expand on their
perceptions of the game. Results collected from an interview with the participants’ teacher are also included in this study.

2.3. Procedure

Participants met once a week for a period of four weeks in which they engaged in game-playing for approximately 15-20 minutes. They played Spaceteam ESL in groups of 2-3 players at the beginning of each class as a warm-up activity. Because the study was conducted in early stages of the development of Spaceteam ESL, only the first level of the game was used, the one that contained the 1,000 most frequently used words in English.

3. Results and discussion

The results of the current study are based on an analysis of the oral interviews and the survey results (using descriptive statistics). Due to space constraints, only a set of the responses obtained in the survey and interviews will be reported. In general, participants believed Spaceteam ESL to be a good educational game: they agreed it was a fun way to practice using the target language. However, as only the first level of the game was available at the time when this study took place, the game’s target vocabulary and the related pronunciation features became too easy and repetitive for participants after a few sessions. Therefore, some of the participants described Spaceteam ESL as “a good game for beginners”.

Two participants and their teacher felt that Spaceteam ESL allowed them to warm-up their oral articulators before the lesson: “my mouth will really open up so we really have a good class after the game”. The game also provided participants with the opportunity to self-monitor their pronunciation (e.g. if they observed that no one was following their instructions) and offer peer feedback so that their team could be effective in speaking and listening to commands to succeed in the game.

Survey responses suggest that Spaceteam ESL increases students’ motivation to participate in class (Mean: 3.75; SD: 1.25). One participant said that her “mood raised a little bit” during gameplay, and the teacher commented that it generated a positive mood that carried over into the lesson, “creating an overall pleasant atmosphere”. The game may have also reduced feelings of nervousness in class: a participant believed that “[Spaceteam ESL] reduced our nervousness … after playing this game people seem relaxed, at least I felt relaxed, and began to speak in a relaxed way”. Participants also expressed that they felt more comfortable
using the game in class than other classroom activities (Mean: 4; SD: 0.81), and felt more comfortable playing the game than speaking in front of the teacher (Mean: 3.75; SD: 1.25).

All participants agreed that Spaceteam ESL helped to increase familiarity between classmates, as the following statements indicate: “[the game] really helped me to know my partner, to know my classmates”, “it’s kind of a different way to know my classmates, […] it’s actually better than just talking”. The teacher also mentioned that when addressing each other in class, students had more confidence: “they addressed each other directly rather than through the teacher”.

Unfortunately, possibly due to the academic context in which this study was conducted, most participants misinterpreted the purpose of Spaceteam ESL, perceiving it as a pedagogical tool to learn new vocabulary. As discussed earlier, however, one of the purposes of Spaceteam ESL in this study was to promote the development of fluency based on previously acquired language.

4. **Conclusions**

Based on student and teacher perceptions of the game, Spaceteam ESL has great potential as a tool to help develop oral fluency and pronunciation in the L2 classroom. In addition, it may contribute to some of the important factors that promote L2 learning: it increases learners’ (and possibly teachers’) motivation, creates a comfortable learning environment, and fosters teamwork and consequently peer-teaching (including peer-feedback). Further research with a larger participant pool and the full version of the game is required for reliable results about the potential benefits of Spaceteam ESL in L2 education.

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**References**


